

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

1. (Currently Amended) A method of manufacturing an optical fibre, comprising:

(i) forming a preform for drawing into the fibre, the preform comprising a bundle of elongate elements arranged to form a first region that becomes a cladding region of the fibre and a second region that becomes a core region of the fibre;

(ii) drawing the preform into the fibre, wherein (a) the bundle of elongate elements comprises a plurality of dielectric elongate elements comprising elongated first purity elements having a first OH<sup>-</sup> content ~~of a first purity dielectric material~~ and at least one ~~elongate~~ elongated second purity element having a second OH<sup>-</sup> content ~~element of a second purity dielectric material~~, wherein the first purity OH<sup>-</sup> content is lower than the second purity OH<sup>-</sup> content, and (b) the first region comprises a plurality of the first purity elements and the second region comprises the second purity element;

~~wherein the purity of the dielectric material is inversely proportional to the optical loss per meter of the optical fibre in that the first purity dielectric material provides more optical loss than the second purity dielectric material per meter.~~

2. (Previously Presented) The method as claimed in claim I, in which the second region comprises a plurality of second purity elements.

3. (Previously Presented) The method as claimed in claim 1, in which the first region includes at least one second purity element.

4. (Previously Presented) The method as claimed in claim 3, in which the first region includes a ring of second purity elements that substantially surround, and are adjacent to, the second region.

5. (Currently Amended) The method as claimed in claim 1, in which the second region includes at least part of at least one of the first purity elements, ~~such that the core region of the drawn fibre includes first purity material as well as second purity material.~~

6. (Previously Presented) The method as claimed in claim 5, in which the second region includes at least part of the elements forming an innermost ring of first purity elements that substantially surround, and are adjacent to, the second purity element(s).

7. (Currently Amended) The method as claimed in claim 6, in which the only parts of the first purity elements forming the ring that are included in the second region are the parts of the elements adjacent to the second purity elements ~~core~~.

8. (Previously Presented) The method as claimed in claim 1, in which the drawn fibre is a photonic crystal fibre such that the cladding region of the drawn fibre

comprises a plurality of elongate bodies of a first refractive index embedded in a matrix material of a second refractive index, wherein the second refractive index is different from the first refractive index.

9. (Previously Presented) The method as claimed in claim 8, in which the first purity elements comprise an outer portion that forms the matrix material and an inner portion that forms the elongate body, in the cladding region of the drawn fibre.

10. (Previously Presented) The method as claimed in claim 9, in which the first purity elements are dielectric tubes, such that the inner portion is a hole.

11. (Previously Presented) The method as claimed in claim 1, in which the second purity element (s) is/are a cane or canes.

12. (Currently Amended) A preform for drawing into an optical fibre, the preform comprising a bundle of elongate elements arranged to form a first region that becomes a cladding region of the fibre and a second region that becomes a core region of the fibre, wherein (a) the bundle of elongate elements comprises a plurality of dielectric elongate elements comprising elongated first purity elements having a first OH<sup>-</sup> content of a first purity dielectric material and at least one elongate elongated second purity having a second OH<sup>-</sup> content ~~element of a second purity dielectric material~~, wherein the first purity OH<sup>-</sup> content is lower than the second purity OH<sup>-</sup> content, and (b) the first region comprises a plurality of the first purity elements and the second region comprises the second purity element, ~~wherein the purity of~~

~~the dielectric material is inversely proportional to the optical loss per meter of the optical fibre in that the first purity dielectric material provides more optical loss than the second purity dielectric material per meter.~~

13. (Currently Amended) An optical fibre, the fibre comprising a cladding region and a core region, wherein the cladding region comprises dielectric material of a first purity having a first OH<sup>-</sup> content and the core region comprises dielectric material of a second purity having a second OH<sup>-</sup> content, wherein the first purity OH<sup>-</sup> content is lower than the second purity OH<sup>-</sup> content ~~wherein the purity of the dielectric material is inversely proportional to the optical loss per meter of the optical fibre in that the first purity dielectric material provides more optical loss than the second purity dielectric material per meter.~~

14. (Previously Presented) The fibre as claimed in claim 13, in which the cladding region comprises a plurality of elongate bodies of a first refractive index, embedded in a matrix material of a second refractive index, wherein the second refractive index is different than the first refractive index.

15. (Previously Presented) The fibre as claimed in claim 14, in which the elongate bodies are elongate holes.

16. (Previously Presented) The fibre as claimed in claim 13, in which the core region includes material of the first purity.

17. (Previously Presented) The fibre as claimed in claim 13, in which the cladding region includes material of the second purity.

18 – 21. (Canceled)

22. (Currently Amended) The method as claimed in claim 20, wherein the second ~~higher purity dielectric material has an OH<sup>-</sup> content concentration that is~~ smaller than is less than or equal to 3 ppm.

23. (Currently Amended) The method as claimed in claim 20, wherein the second ~~higher purity dielectric material has an OH<sup>-</sup> content concentration that is~~ smaller than is less than or equal to 1 ppm.

24 - 26. (Cancelled)

27. . (New) The method as claimed in claim 1, wherein the first OH<sup>-</sup> content is equal to or more than 10 times higher than the second OH<sup>-</sup> content.